

Proposed MassDEP Guidance for Permitting New Sources of PM_{2.5} (Draft)

Massachusetts SIP Steering Committee
April 29, 2008

PM2.5 NAAQS

24-hour 35 ug/m³
(98th percentile averaged over 3 years)

Annual 15 ug/m³
(annual arithmetic mean averaged over 3 years)

Recommended EPA Guidance

Condensables ?

SILs ?

EPA modeling guidance?

PM2.5 Emissions

MassDEP presently requires direct filterable and condensable limits for PM10.

MassDEP now proposes to include direct filterable and condensable limits for PM2.5

Test Method for PM2.5 Condensables

EPA has not yet adopted a recommended method for determining condensable fraction of PM2.5 emissions.

Compliance with the condensable fraction of PM emissions will be determined using a modified 40 CFR 51, Appendix M Method 202. MassDEP now proposes to use a modified Method 202 that uses dry impingers to collect the condensable fraction.

Secondary Emissions from Precursors

EPA has no guidance for determining secondary formation of PM_{2.5} from precursor emissions.

MassDEP will not require determining secondary formation of PM_{2.5} from precursor emissions at the present time.

Significant Impact Levels

Significant Impact Level (SIL) is a de minimus pollutant concentration from a proposed facility.

If the modeled emissions from a facility are at or below a SIL, the facility has demonstrated compliance with the applicable NAAQS (in accordance with EPA guidance).

EPA has not yet adopted SILs for PM_{2.5}.

Significant Impact Levels (cont.)

In December of 2006, the NESCAUM Modeling Committee recommended using a 24-hour SIL of 2.0 ug/m³ and an annual average SIL of 0.3 ug/m³.

Until EPA adopts SILs for PM_{2.5}, MassDEP proposes to use the NESCAUM SILs. Note that EPA may propose SILs for PM_{2.5} that are lower than those recommended by the NESCAUM Modeling Committee.

PM2.5 Compliance Demonstrations

If the modeled PM2.5 impacts from a proposed facility are at or below the NESCAUM SILS for PM2.5, MassDEP will consider that to be an acceptable NAAQS compliance demonstration.

If the modeled PM2.5 impacts from a proposed facility are above the NESCAUM SILs for PM2.5, MassDEP may require nearby sources of PM2.5 to be included in the NAAQS compliance demonstration. Modeling guidance will be prepared for selecting nearby sources.